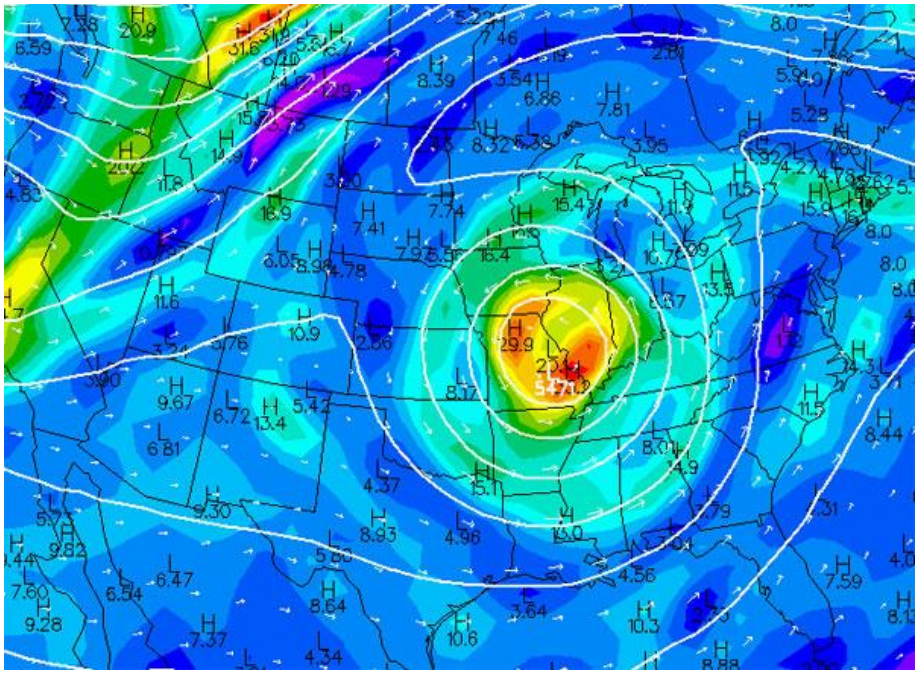
What is a '*cutoff*' low?

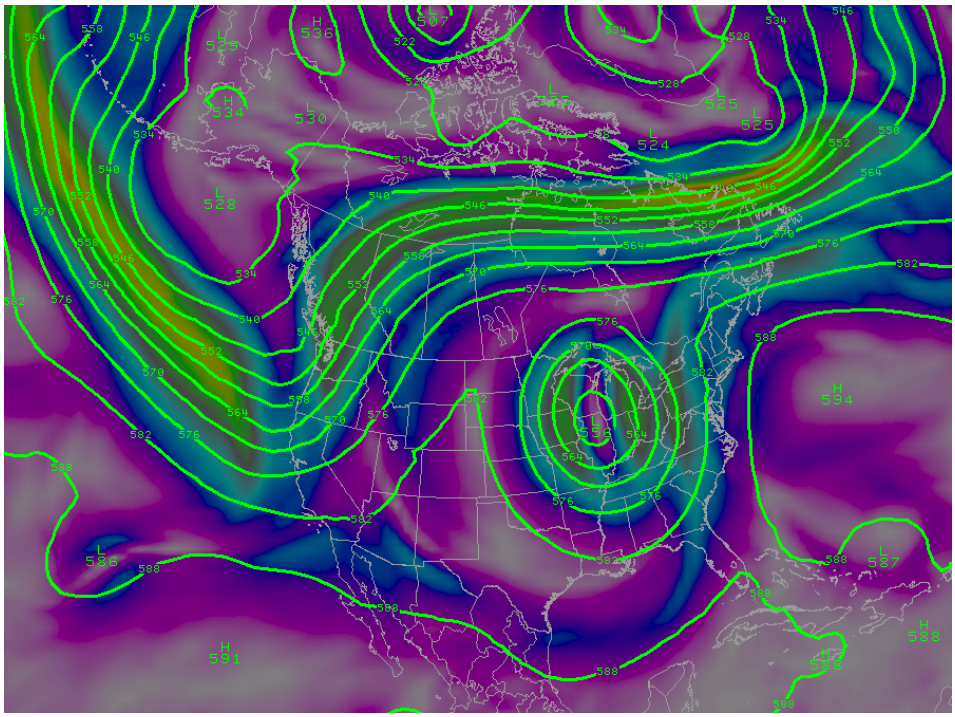
In the spring and the fall, occasionally a sharp trough deepens, becomes separated from the jet stream, and forms a closed, or '*cutoff*,' low. This closed circulation can remain almost stationary for several days.

The image below shows a *cutoff* low centered over eastern Missouri. In this case, the jet stream, which normally carries storm systems in a generally west to east direction across the mid-latitudes, is so far removed from the circulation that it remains stationary. In the image below, the jet stream extends from the Pacific Northwest across Hudson Bay in Canada.



Below is an example of another *cutoff* low which is nearly in the same position. This one developed around the 25th of September in 2011. It brought several days of cloudy, cool, rainy weather over that weekend. Note that the jet stream is highlighted as a ribbon of yellow across

northern Canada. In this case, strong winds above 15,000 feet were also circulating around the ***cutoff*** low, which in this case was located across northern Illinois.



Cutoff lows are infamous for bringing long stretches of cool, cloudy, showery weather. A closed low that developed from the remnants of tropical storm ***Lee*** during early September of 2011 brought 3 consecutive days of record cool highs in the mid 60s to much of central Kentucky. Ironically, the cool, damp weather right underneath of a ***cutoff*** low is often surrounded by a long lasting period of warm and sunny weather around its periphery! The image below points this out. In this case satellite imagery shows that sunny skies surround the ***cutoff*** low over Illinois along an arc extending from the Plains through the northern Great Lakes and New England.